

REMARKS

As a preliminary matter, Applicants thank the Examiner for the continued allowance of claims 13-14.

Claims 9-12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Farchmin et al. (U.S. 5,567,042) in view of Takahashi et al. (JP 2000-010095). Applicants respectfully traverse this rejection because neither of the cited references, whether taken alone or in combination, teaches or suggests that light is reflected off of the reflector only in a direction that does not reenter cold-cathode tubes, as in claim 9 of the present invention, as amended.

As can be clearly seen in the attached, marked-up copy of Fig. 5 from Farchmin, light from the bottom lamp 28B directly passes through center point A9 of radius R (“R*”) to reflect off of the curved portion of the reflector 26 near surface A1. The red line shown in the marked-up drawing shows that the light so reflected will directly reenter the lamp 28B along the same line. Similar results will occur with light passing from lamp 28A, through center point B8 of curved surface B2, to reflect off of the surface B2 directly back into lamp 28A. Accordingly, at least some of the light from Farchmin’s lamps 28 has to reenter the lamps after reflecting off of the reflector 26. Farchmin therefore, cannot read upon independent claim 9 of the present invention, as amended.

Independent claim 9 of the present invention as amended recites, among other things, that the light is reflected off of the reflector only in a direction that does not reenter the cold-cathode tubes of the present invention. As demonstrated above, Farchmin cannot meet this limitation. Takahashi is cited by the Examiner only for the purpose of showing the use of

optical waveguides in indirect lighting systems. Nothing in the Takahashi reference teaches or suggests anything having to do with a curved surface for a reflector, or more particularly, a curved surface that does not reflect light back into lamps/tubes. Accordingly, for at least these reasons, the Section 103 rejection of independent claim 9, as well as its dependent claims 10-12, is traversed.

Claim 15 again stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuki (JP 10-091079) in view of Okahira et al. (JP 09-282918). Applicants respectfully traverse this rejection for at least the reasons of record, and as follows. The Examiner has not considered claim 15 in light of the present Specification, and thus a *prima facie* case of obviousness has not been established because all of the claimed features and limitations do not appear in the prior art references, taken alone or together.

Specifically, the Examiner does not appear to have given any consideration to the amendments made to claim 15 in Amendment C, filed June 5, 2006, which amendments clearly define the claim over the cited prior art. The Examiner's failure to consider these amendments is evidenced by the Examiner's statement on the first two lines of page 6 of the outstanding Office Action, that "The amendment really does not change the meaning of the claim." As pointed out to the Examiner, Fig. 10 of the present invention, as well as its accompanying text, clearly define how phosphor is disbursed inside a wall of the tube, and in a way that is neither taught nor suggested by the prior art.

The Examiner is not reasonably interpreting claim 15 when she asserts that merely disbursing phosphor inside a tube is equivalent to disbursing phosphor inside a wall of the tube, as the last amendments to claim 15 distinguished. The amendments to claim 15 did

not merely claim that phosphor was disbursed *within* the walls of the tube, but in fact, inside the wall of the tube itself. Again, as clearly shown in Fig. 10 of the present Application, the Examiner has not reasonably interpreted claim 15 in light of the present Specification.

Accordingly, even though no further amendment to claim 15 is necessary for the reasons stated above, Applicants have nevertheless altered the grammar of this particular feature of claim 15 to recite a substantive equivalent to the claim as it was last amended. Accordingly to this grammatical rewording, none of the Examiner's interpretations of the cited prior art references could read upon the present invention. Specifically, Applicants have reworded the feature of claim 15 that recited the dispersion of phosphor "inside a wall of the tube" to now read as being disbursed between the inner and outer diameters that form a wall of the tube. The Examiner has never asserted anything other than the fact that it is merely known to disburse phosphor "inside" a cold-cathode tube. The Examiner has never asserted that phosphor is actually disbursed within the inner and outer boundaries that form the wall of such tubes themselves. Accordingly, the rejection of claim 15 is further traversed for at least these reasons, and should be withdrawn.

Claim 16 again stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kazuki in view of Suzawa (U.S. 4,487,481) and further in view of Okahira. Applicants therefore again respectfully traverse this rejection for at least the reasons of record, and as follows. A *prima facie* case of obviousness has not been established against the present invention, and the Examiner has not considered all of the recited limitations of claim 16 together as a whole.

Specifically, the Examiner's response to Applicants' previous arguments traversing this rejection focus almost entirely on a single rebuttal argument to the asserted *prima facie* case, while almost entirely ignoring Applicants challenge to whether the *prima facie* case has even been made. Specifically, whether a reference teaches away from the claimed invention is an issue for the Examiner to consider only if a proper *prima facie* case of obviousness has been established. Section 2143.03 of the MPEP requires, however, that to first establish the *prima facie* case of obviousness, the Examiner must be able to cite to where each and every feature and limitation of the claims is taught or suggested in the prior art. In the present case, however, this requirement has simply not been met, and the Examiner has not sufficiently responded to Applicants' arguments on this issue.

For example, on page 6 of the outstanding Office Action, the Examiner mischaracterizes Applicants' arguments by stating that it was argued that "one reference does not disclose the heating element and the reflector on the same inner surface of the housing." Applicants never so limited the discussion to merely one of the references in this way. In fact, the Examiner should have clearly seen on the first full paragraph of page 10 of Amendment C, the clear argument that "none of the references, whether taken alone or together, teach or suggest that a heating element is located on the same inner surface of the housing as the reflector." (Emphasis added). Applicants therefore repeat this argument herein, because the Examiner has still not demonstrated where all of the cited prior art references teach or suggest these clearly recited features of claim 16.

Applicants acknowledge that a rejection based on obviousness does not have to be able to show all of the elements of a single claim within only one reference. Applicants

remind the Examiner though, that even the Examiner's proposed combination of references must still show all the claimed features and limitations of the rejected claim. Claim 16 does not merely recite a reflector, a heating element, and an inner surface of the housing, as the Examiner appears to imply. In fact, claim 16 additionally defines a *structural relationship* to the relative location of these various elements together. The relative location of these different elements is itself an additional *limitation* of the claim, and one to which the Examiner has not cited any relevant teaching or suggestion in any of the cited prior art references. The Examiner's attempt to dismiss the need to find such a teaching or suggestion within the references is inappropriate, and it defeats the asserted *prima facie* case of obviousness, while also failing to answer Applicants' arguments traversing the *prima facie* case.

Specifically, the Examiner explains, on page 6 of the outstanding Office Action, her own personal theory how an inner surface of a housing can be "made of several surfaces enclosing an inner area." Whether or not this theory is correct in principle, it is irrelevant to the rejection of claim 16 of the present invention. Claim 16 does not define "several surfaces," but in fact, that the reflector is "formed on *an* inner surface" (emphasis added), and later that the heating element is located "on the inner surface." Under simple claim interpretation rules regarding the concept of antecedent basis, the Examiner is required to consider that "the inner surface" recited later in the claim is the same "inner surface" recited earlier in the claim.

The theory of "several surfaces" presented by the Examiner, however, entirely fails to reasonably consider these clearly recited features of claim 16 according to their plain meanings. The Examiner's additional statement therefore, that "the claim really does not require that the heating element and the reflector be on the same exact surface," is clearly

erroneous. Claim 16 only recites one such “inner surface,” and therefore by definition, this inner surface can only be the same inner surface each time it appears in the claim.

Moreover, even though the Examiner attempts to trivialize the differences between the present invention and the Okahira reference in particular, namely, that “Okahira teaches a *slightly different* configuration with respect to the reflector” (emphasis added), the Examiner nevertheless acknowledges that there actually is a “different configuration” between Okahira and the present invention. To establish a rejection based on obviousness therefore, the Examiner must be able to demonstrate how and where the other cited references in the rejection not only teach or suggest the elements of the present invention that are admittedly missing from Okahira, but also how these references overcome the clearly “different configuration” shown by Okahira. None of the cited references, however, overcome such deficiencies.

The Examiner has simply not established, as she is required to do, where any of the prior art references teach or suggest to relocate Okahira’s lamp 46a from behind the reflector 38 to somehow being on or in front of the reflector on the same inner surface. None of the references cited by the Examiner accomplish this task. Whether or not the Examiner considers such differences from the present invention to be only “slight,” patentability is not determined by the *degree* of novelty over the prior art. The novelty itself is what determines patentability of the claims, and even “slight” differences (which the Examiner affirmatively acknowledges) are patentable.

Nevertheless, although Applicants again submit that the Examiner’s interpretation of the recited language from claim 16 of the present invention is clearly

erroneous for at least the reasons discussed above, claim 16 has been further amended herein to redundantly recite the features of the claims that are already necessarily part of the recited subject matter. Specifically, claim 16 has been further amended herein to redundantly claim that the location of the heating element is “on the same inner surface of the housing as is formed the reflector.” The Examiner should have been already required to interpret claim 16 according to this same meaning, but Applicants have amended the claim further herein solely in the efforts to expedite prosecution, in the hopes of avoiding an unnecessary appeal of the improper rejection.

For all of the foregoing reasons, Applicants submit that this Application, including claims 13-16, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

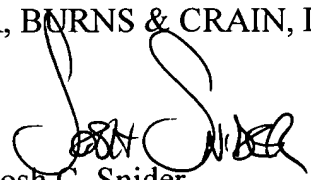
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